

CLAIMS

What Is Claimed Is:

1. 1. A method for the modification of a layer of a tissue comprising the steps of:
 2. applying to a section of the tissue a substance having a high absorption of at least one frequency band of electromagnetic radiation
 4. illuminating the covered section of the targeted tissue with electromagnetic radiation of said at least one frequency band of electromagnetic radiation, said radiation energy is thereby absorbed by the high absorption substance covering the target tissue surface and is thereby converted to thermal energy sufficient to bring about irreversible modification in the skin properties.
1. 2. The method as in claim 1 wherein said high absorption substance is a suspension containing high absorbing particles of a dimension larger than 50 microns.
1. 3. The method as in claim 1 wherein said high absorption substance is a suspension containing high absorbing particles of a dimension larger than 30 microns
1. 4. The method as in claim 1 wherein said high absorption substance is a suspension containing high absorbing particles of a dimension larger than 0.1 microns
1. 5. The method as in claim 1 wherein said high absorption substance is a thin film containing high absorbing particles
1. 6. The process as in claim 5 wherein said high absorption substance is deposited in a thin film containing high absorbing particles of density which assures that at least 60% of the light energy is intercepted and absorbed by the particles.
1. 7. The process as in claim 5 wherein said high absorption substance is deposited in a thin film containing high absorbing particles of density which assures that at least 40% of the light energy is intercepted and absorbed by the particles.
1. 8. The process as in claim 5 wherein said high absorption substance is deposited in a thin film containing high absorbing particles of density which assures that at least 20% of the light energy is intercepted and absorbed by the particles.
1. 9. The process as in claim 1 wherein said high absorption substance is deposited in a thin film containing high absorbing particles of density corresponding to the rate of energy deposition per unit area so that the energy deposited in the skin is sufficient for the removal of at no more than 70% of the epidermis and the energy deposited in the skin

- 5 allows permanent modification of the skin to a depth of no more than 100 micrometer
6 below said depth of tissue removal.
- 1 10. The method of claim 1 where said high absorption substance is a paper containing
2 highly absorbing particles.
- 1 11. The method of claim 1 where said high absorption substance is made of agar
2 containing highly absorbing particles
- 1 12. The method of claim 1 where said high absorption substance is a mixture
2 containing highly absorbing particles.
- 1 13. The method of claim 1 where said high absorption substance is a layer of thermal
2 insulator containing highly absorbing particles.
- 1 14. The method of claim 1 where said high absorption substance is a layer of thermal
2 conductor containing highly absorbing particles
- 1 15. The method of claim 1 where said high absorption substance is a metallic layer
2 containing highly absorbing particles.
- 1 16. The method of claim 1 wherein said high absorption substance is applied to a film
2 of material on the side facing the energy source and not to the side which is in contact
3 with the skin
- 1 17. The method of claim 1 wherein said high absorption substance is applied to a film
2 of material on the side facing the energy source and not to the side which is in contact
3 with the skin, and the film is made of thin layer allowing transmittal of at least some
4 thermal energy to the target material
- 1 18. The method of claim 1 wherein said high absorption substance is applied to a film
2 of material on the side facing the energy source and not to the side which is in contact
3 with the target material, and, The film is made of thermally conducting material
- 1 19. The method of claim 1 wherein said high absorption substance is mixed with
2 grains of conducting material to form a film of thermally conducting – optically
3 absorbing mix.
- 1 20. The method as in claim 5 wherein said high absorption substance is deposited in a
2 thin film containing high absorbing particles of density which assures that at least 80% of
3 the light energy is intercepted and absorbed by the particles.